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Virginia Dark-Fired Tobacco Variety Information for 1995

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Information is provided for widely grown varieties in Tables 1-4 of this publication. Seed of Lizard Tail Orinoco, VA 309, VA 312, Shirey, and Brownleaf, JH should be commercially available for 1995. Average performance of 5 varieties included in the 1994 Virginia Dark-fired Variety Tests is shown in Table 1. These tests were conducted in Charlotte (K. Mason and R. Walker farms) and Nottoway (Southern Piedmont Agricultural Research and Extension Center) counties under the joint supervision of Extension Agents in the respective counties and Virginia Polytechnic Institute and State University Research and Extension personnel. Testing in various locations in the production area makes it possible to evaluate varietal performance under the widely ranging soil and climatic conditions existing in Virginia. Such a testing program provides an opportunity for producers to observe dark-fired tobacco varieties under field conditions in their particular region. Data in Table 1 are for only one year and the results may not be indicative of what might be obtained in other years. Where available, averages that include 1990 to 1994 data are also presented in Table 2.

Certain agronomic and disease information is given in Table 3. In addition to yield, quality potential, and ease of handling, the history of various disease problems on your farm should weigh into the decision of which variety is best suited to your farm. Black shank, a disease caused by the soilborne fungus *Phytophthora parasitica* and black root rot, a disease caused by the soilborne fungus *Thielaviopsis basicola*, have continued to cause yield reductions in many seasons. For land where black shank and/or black root rot is a problem, VA 309 is suggested. VA 312 is also suggested for land where black root rot is a problem. However, the use of resistant varieties alone cannot prevent losses due to disease infestations. Any variety can suffer damage when disease-causing organisms are present and when weather conditions favor diseases. Crop rotation should be practiced in every field, no matter what variety is grown. Varietal resistance should be used with crop rotation with nonhost plants, early root destruction, and the proper use of labelled pesticides to achieve consistent, cost-effective disease and nematode control.

Table 1. Virginia Dark-fired Tobacco Variety Test Results: Yield, Value, Price, Grade Index, 1994.¹

Variety	State Average				So Pied Ag Res & Ext Ctr				K. Mason Farm				R. Walker Farm			
	Yield lbs/A	Value \$/A	Price \$/cwt	GI ²	Yield lbs/A	Value \$/A	Price \$/cwt	GI	Yield lbs/A	Value \$/A	Price \$/cwt	GI	Yield lbs/A	Value \$/A	Price \$/cwt	GI
Brownleaf, JH	2136	3741	175	65	2070	3518	170	63	2430	4308	177	72	1908	3398	178	61
Liz Tail Tur Ft	2311	3961	171	62	2325	3847	164	57	2310	4071	176	71	2298	3964	173	58
Shirey	2181	3775	173	62	2006	3276	163	55	2250	3973	177	71	2286	4077	178	61
VA 309	2091	3503	167	56	1984	3004	152	41	2100	3711	177	71	2190	3793	173	56
VA 312	2087	3602	172	61	2140	3490	162	51	1950	3436	176	71	2172	3879	179	62

¹Tests were conducted in Nottoway (So. Pied. Ag. Res. & Ext. Ctr.) and Charlotte (K. Mason Farm and R. Walker farm) counties in 1994.

²GI=Grade Index; Grade index is a numerical quality rating based on government grade. High ratings are best.

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Table 2. Virginia Dark-fired Tobacco Variety Test Results by Years, Southern Piedmont Agricultural Research and Extension Center, Blackstone, VA.¹

Variety	Yield, lbs/A						Value, \$/A						Price, \$/cwt				
	1990	1991	1992	1993	1994	Avg.	1990	1991	1992	1993	1994	Avg.	1990	1991	1992	1993	1994
Brownleaf, JH	1983	2144	2004	2124	2070	2065	3312	3654	3490	3711	3518	3537	167	170	174	175	170
Daniels Special	2025	2071	2010	2173	2170	2090	3378	3362	3567	3773	3516	3519	167	161	177	174	162
Liz Tail Orinoco	2226	2171	2059	2228	1990	2135	3717	3364	3543	3956	3244	3565	167	155	172	178	163
Liz Tail Tur Ft	2299	2569	1985	2115	2325	2259	3869	4630	3408	3685	3847	3888	168	179	171	174	164
Sears Special	2067	2188	1984	2312	2179	2146	3504	3408	3366	4011	3435	3545	170	155	170	173	157
Shirey	2167	2412	1893	2022	2006	2100	3916	4184	3288	3516	3276	3636	180	170	173	171	163
Silky Pride	2038	2070	1841	2152	2100	2040	3316	3346	3131	3675	3448	3383	163	162	169	170	164
VA 309	2388	2402	1874	2189	1984	2167	4357	3898	3284	3739	3004	3656	182	163	175	171	152
VA 310	2352	2224	1916	2239	2214	2189	4143	3533	3187	3785	3409	3611	177	158	166	168	154
VA 312	2375	2325	1961	2390	2140	2238	4183	4074	3345	4266	3490	3872	176	175	171	179	162
VA 331	2052	1965	1781	2021	2109	1986	3364	3079	2979	3344	3356	3224	164	156	167	165	159
Walkers Broadleaf	2129	2197	1853	2221	2087	2097	3613	3382	3218	3873	3453	3508	170	154	173	174	165

¹Averages are not directly comparable unless the number of years is equivalent.

Table 3. Agronomic and Disease Information for Dark-fired Tobacco Varieties Tested at the Southern Piedmont Agricultural Research and Extension Center, Blackstone, VA, 1994.

Variety	Days to Flower	Plant Height (in)	Leaf no.	Ground Suckers /Plot ¹	Length (L) and Width (W)				BS	Disease Reaction ²		
					Mid Leaf		Top Leaf			RK	TMV	BRR
					inches							
Brownleaf, JH	53	22.7	10.5	0.3	30.6	15.9	32.4	15.9	S	S	S	L
Daniels Special	49	22.8	11.1	1.3	30.4	15.2	30.7	14.4	S	S	S	L
Liz Tail Orinoco	49	22.9	11.9	1.0	28.6	14.4	27.6	14.7	S	S	S	S
Liz Tail Turt Ft	53	21.4	11.7	2.3	32.5	16.0	33.2	15.9	S	S	S	S
Sears Special	53	22.7	11.7	4.7	30.8	16.4	31.4	17.2	S	-	S	M
Shirey	55	22.5	11.5	0	28.9	15.4	31.3	15.6	S	S	S	L
Silky Pride	51	23.7	12.0	5.3	30.4	13.6	30.0	14.0	S	S	S	S
VA 309	53	22.8	10.8	1.7	28.5	15.5	27.9	14.9	M	S	S	M
VA 310	49	22.8	12.1	4.0	28.7	14.5	28.1	13.6	M	S	S	L
VA 312	53	23.0	11.8	0	32.5	16.1	31.5	14.9	S	S	R	H
VA 331	49	24.9	12.2	0	30.2	14.7	29.5	13.4	M	-	S	L
Walkers Broadleaf	53	23.4	12.3	8.0	30.8	14.3	32.1	14.4	S	S	S	L

¹Ground suckers/18 plant plot.

²Disease reaction: BS = Black Shank; RK = Root Knot; TMV = Tobacco Mosaic Virus; BRR = Black Root Rot
H = high resistance; M = moderate; L = low; R = resistant; S = susceptible.

While the traditional flavor and aroma characteristic of certain old-line varieties, such as Lizard Tail Orinoco, Shirey, and Walkers Broadleaf, are still desirable, disease problems often can limit the production of these varieties. Careful consideration should be given to the choice of a variety to meet specific production objectives. Varieties differ in disease reaction, chemical composition, response to nutrient levels in the soil, and many other factors. Careful study of the information presented in this publication may be helpful in choosing a variety which will fit into specific production management systems and alleviate or reduce the severity of particular production problems.

Table 4. Percentage distribution of group and color grade factors of the Virginia Dark-Fired Tobacco Variety Test, 1994.¹

Variety	Group (%) ²			Color (%) ³			
	X	C	B	L	F	M	G
Brownleaf, JH	8	75	17	0	83	17	0
Liz Tail Turt Ft	8	84	8	0	73	19	8
Shirey	9	76	15	4	76	18	2
VA 309	11	77	12	0	69	7	24
VA 312	8	80	12	3	82	12	3

¹Values are averages of tests conducted at 3 locations.

²X = lugs; C = thin leaf; B = heavy leaf.

³L = light brown; F = medium brown; M = mixed or variegated; G = green.

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